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FILE 'BIOSIS, MEDLINE, CA' ENTERED AT 20:03:50 ON 11 JAN 2003

E MAUZE G/AU

L1	20 S E5-E7
L2	1 S L1 AND ELECTROCHEMILUMINESCENCE
L3	0 S ELECTROCHEMILUMINESCENCE AND RUTHEMIUM AND (NICKEL OR COBALT
L4	2 S RUTHEMIUM AND (NICKEL OR COBALT OR ZINC)
L5	0 S BIMETALIC COMPLEX
L6	22619 S COMPLEX AND RUTHENIUM
L7	2220 S COMPLEX AND RUTHENIUM AND (NICKEL OR COBALT OR ZINC)
L8	993 S COMPLEX AND RUTHENIUM (10A) (NICKEL OR COBALT OR ZINC)
L9	0 S L8 AND PY>05042001
L10	983 S L8 AND PD>05042001
L11	10 S L8 NOT L10

L11 ANSWER 4 OF 10 MEDLINE
AN 2001133825 MEDLINE
SO CHEMISTRY, (2001 Jan 5) 7 (1) 258-71.
Journal code: 9513783. ISSN: 0947-6539.
TI Synthesis, characterisation, crystal structures, reactivity, and
electrochemistry of **ruthenium**-nitrido, **ruthenium-**
cobalt-imido and ruthenapyrrolidone carbonyl clusters containing
alkyne ligands.
AU Ho E N; Lin Z; Wong W T
AB Thermolysis of $[\text{Ru}_3(\text{CO})_9(\mu_3\text{-NOMe})(\mu_3\text{-}\eta^2\text{-PhC}_2\text{Ph})]$ (1) with two
equivalents of $[\text{Cp}^*\text{Co}(\text{CO})_2]$ in THF afforded four new clusters, brown
 $[\text{Ru}_5(\text{CO})_8(\mu\text{-CO})_3(\eta^5\text{-C}_5\text{Me}_5)(\mu_5\text{-N})(\mu_4\text{-}\eta^2\text{-PhC}_2\text{Ph})]$ (2), green
 $[\text{Ru}_3\text{Co}_2(\text{CO})_7(\mu_3\text{-CO})(\eta^5\text{-C}_5\text{Me}_5)_2(\mu_3\text{-NH})(\mu_4\text{-}\eta^8\text{-C}_6\text{H}_4\text{-C(H)C(Ph)})]$ (3),
orange $[\text{Ru}_3(\text{CO})_7(\mu\text{-}\eta^6\text{-C}_5\text{Me}_4\text{CH}_2)(\mu\text{-}\eta^3\text{-PhC}_2(\text{Ph})\text{C(O)N(OMe)})]$ (4) and
pale yellow $[\text{Ru}_2(\text{CO})_6(\mu\text{-}\eta^3\text{-PhC}_2(\text{Ph})\text{C(O)N(OMe)})]$ (5). Cluster 2 is a
pentaruthenium μ_5 -nitrido **complex**, in which the five metal
atoms are arranged in a novel "spiked" square-planar metal skeleton with a
quadruply bridging alkyne ligand. The μ_5 -nitrido N atom exhibits an
unusually low frequency chemical shift in its ^{15}N NMR spectrum. Cluster 3
contains a triangular Ru_2Co -imido moiety linked to a ruthenium-cobaltocene
through the $\mu_4\text{-}\eta^8\text{-C}_6\text{H}_4\text{C(H)C(Ph)}$ ligand. Clusters 4 and 5 are both
metallapyrrolidone complexes, in which interaction of diphenylacetylene
with CO and the NOME nitrene moiety were observed. In 4, one methyl group
of the Cp^* ring is activated and interacts with a ruthenium atom. The
"distorted" Ru_3Co butterfly nitrido **complex** $[\text{Ru}_3\text{Co}(\text{CO})_5(\eta^5\text{-C}_5\text{Me}_5)(\mu_4\text{-N})(\mu_3\text{-}\eta^2\text{-PhC}_2\text{Ph})(\mu\text{-I})_2\text{I}]$ (6) was isolated from the reaction
of 1 with $[\text{Cp}^*\text{Co}(\text{CO})\text{I}_2]$ heated under reflux in THF, in which a Ru-Ru wing
edge is missing. Two bridging and one terminal iodides were found to be
placed along the two Ru-Ru wing edges and at a hinge Ru atom,
respectively. The redox properties of the selected compounds in this study
were investigated by using cyclic voltammetry and controlled potential
coulometry. ^{15}N magnetic resonance spectroscopy studies were also
performed on these clusters.